

CLAIMS

1. An information recording apparatus comprising:

5 a recording device for recording record information onto an information recording medium by irradiating the information recording medium with laser light with a recording power according to a set value;

a calculating device for preparing correlation information which represents a correlation between the set value and reproduction quality, and for obtaining a reference set value which gives target reproduction quality as
10 being desired reproduction quality, by reproducing test-record information recorded with changing the set value on said recording device;

a measuring device for measuring the reproduction quality, by reproducing the record information recorded by using the reference set value on said recording device; and

15 an adjusting device for obtaining adjustment amount of the reference set value on the basis of the correlation information if the reproduction quality measured by said measuring device is different from the target reproduction quality, and for adjusting the reference set value such that a set value which is adjusted based on the adjustment amount is to be a new
20 reference set value.

2. The information recording apparatus according to claim 1, wherein said adjusting device adjusts the reference set value, by a predetermined adjustment amount, in stages.

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3. The information recording apparatus according to claim 2, wherein

size of the predetermined adjustment amount is variable.

4. The information recording apparatus according to claim 1, wherein
said adjusting device does not adjust the reference set value if the adjustment
5 amount of the reference set value is equal to or less than a predetermined
amount.

5. The information recording apparatus according to claim 1, wherein
said adjusting device adjusts the reference set value every time said recording
10 device records a predetermined amount of record information or in each
predetermined time length.

6. The information recording apparatus according to claim 1, wherein
the reproduction quality is reproduction quality including at least one of an
15 asymmetry value, a jitter value and a reproduction error rate.

7. The information recording apparatus according to claim 1, wherein
said measuring device measures the reproduction quality of the record
information recorded by said recording device immediately before
20 measurement.

8. The information recording apparatus according to claim 1, further
comprising a controlling device for controlling said recording device to record
at least one of the correlation information obtained by said calculating device
25 and information as for the reference set value, onto the information recording
medium.

9. An information recording method comprising:

a recording process of recording record information onto an information recording medium by irradiating the information recording medium with laser light with a recording power according to a set value;

a calculating process of preparing correlation information which represents a correlation between the set value and reproduction quality, and of obtaining a reference set value which gives target reproduction quality as being desired reproduction quality, by reproducing test-record information recorded with changing the set value in said recording process;

a measuring process of measuring the reproduction quality, by reproducing the record information recorded by using the reference set value in said recording process; and

an adjusting process of obtaining adjustment amount of the reference set value on the basis of the correlation information if the reproduction quality measured in said measuring process is different from the target reproduction quality, and of adjusting the reference set value such that a set value which is adjusted based on the adjustment amount is to be a new reference set value.

10. An information recording / reproducing apparatus comprising:

said information recording apparatus according to claim 1; and

a reproducing device for reproducing the recorded information from said information recording medium.

11. An information recording / reproducing method comprising:

said information recording method according to claim 9; and

a reproducing process of reproducing the recorded information from
said information recording medium.

5 12. A computer program for record control to control a computer provided
for the information recording apparatus according to claim 1, said computer
program making the computer function as at least one portion of said
recording device, said calculating detecting device, said measuring device and
said adjusting device.

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13. A computer program for record / reproduction control to control a
computer provided for the information recording / reproducing apparatus
according to claim 1, said computer program making the computer function
as at least one portion of said recording device, said calculating detecting
15 device, said measuring device, said adjusting device and said reproducing
device.